CLAIMS

1. A radio communication system having a communication channel between a primary station and a secondary station for transmission of information from one of the primary and secondary stations (the transmitting station) to the other station (the receiving station), wherein the transmitting station has means for adjusting its output power at a plurality of different rates, the receiving station has means for determining, from measurements of characteristics of signals received from the transmitting station, an appropriate rate of adjustment of the output power of the transmitting station and means for communicating said rate of adjustment to the transmitting station, and the transmitting station has means responsive to communications from the receiving station for setting the adjustment rate of its output power.

2. A system as claimed in claim 1, characterised in that the measured characteristic of signals received from the transmitting station is the rate of change of received signal to interference ratio averaged over a predetermined period.

3. A primary station for use in a radio communication system having a communication channel between the primary station and a secondary station, wherein means are provided for determining, from measurements of characteristics of signals received from the secondary station, an appropriate rate of adjustment of the output power of the secondary station, selected from one of a plurality of rates of adjustment available to the secondary station, and for communicating said rate of adjustment to the secondary station.

4. A primary station as claimed in claim 3, characterised in that the measured characteristic of signals received from the secondary station is the rate of change of received signal to interference ratio.

5. A primary station as claimed in claim 3, characterised in that the measured characteristic of signals received from the secondary station is the rate of change of received signal to interference ratio averaged over a predetermined period.

6. A primary station as claimed in any one of claims 3 to 5, characterised in that communication to the secondary station of required changes in its rate of adjustment of output power is made after the measured signal characteristic has passed a threshold for a predetermined period.

7. A primary station as claimed in claim 4 or 5, characterised in that further properties of the received signal are used to verify the rate of change of output power determined from the rate of change of received signal to interference ratio.

8. A primary station as claimed in any one of claims 3 to 5, characterised in that means are provided for determining the speed of the secondary station and for adjusting the determined appropriate rate of adjustment of the output power of the secondary station depending in the speed of the secondary station.

9. A secondary station for use in a radio communication system having a communication channel between the secondary station and a primary station, wherein means are provided for determining, from measurements of characteristics of signals received from the primary station, an appropriate rate of adjustment of the output power of the primary station, selected from one of a plurality of rates of adjustment available to the primary station, and for communicating said rate of adjustment to the primary station.

10. A secondary station as claimed in claim 9, characterised in that the measured characteristic of signals received from the primary station is the

rate of change of received signal to interference ratio averaged over a predetermined period.

11. A secondary station as claimed in claim 9 or 10, characterised in that communication to the primary station of required changes in its rate of adjustment of output power is made after the measured signal characteristic has passed a threshold for a predetermined period.

12. A secondary station as claimed in claim 10, characterised in that further properties of the received signal are used to verify the rate of change of output power determined from the rate of change of received signal to interference ratio.

13. A method of operating a radio communication system having a communication channel between a primary station and a secondary station for transmission of information from one of the primary and secondary stations (the transmitting station) to the other station (the receiving station), the method comprising the receiving station determining, from measurements of characteristics of signals received from the transmitting station, an appropriate rate of adjustment of the output power of the transmitting station, selected from one of a plurality of rates of adjustment available to the transmitting station, and communicating the determined rate of adjustment to the transmitting station, and in response the transmitting station setting the adjustment rate of its output power.

14. A method as claimed in claim 13, characterised by the measured characteristic of signals received from the transmitting station being the rate of change of received signal to interference ratio averaged over a predetermined period.